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(12) United States Patent

Ueyama et al.

(54) FOLDABLE DEVICE

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See application file for complete search history.

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(57) ABSTRACT

A folding apparatus (1) having transmitter and receiver cases (2, 10), a hinge mechanism (20) for pivotally connecting one end of the transmitter case and that of the receiver case to each other, and a hinge cover (C). The hinge mechanism is connected to corners (15a-16b) of the one end of the transmitter case and of that of the receiver case. The corners (15a-16b) are projected in the direction orthogonal to the one end of each of the transmitter and receiver cases, and the hinge mechanism is installed between the projected corners of the cases. The hinge cover has a pair of box-shaped cover members (7, 8), and a cross-section of each cover member taken in the direction orthogonal to the one end has an ellipse shape. The cover members are arranged so as to face to each other, covering and holding the hinge mechanism located between the projected corners of the transmitter and receiver cases. A fixing means for fixing the pair of the cover members to each other is provided at the one side of the pair of the cover members that are arranged faced to each other, and this one side is a side close to the one end of at least either the transmitter case or the receiver case. Design and mechanical strength of the connection section of a folding apparatus having the pair of apparatus cases are improved.

13 Claims, 16 Drawing Sheets

